

### **REMARKS**

The present Amendment amends claims 1, 3-5 and 8-11 and leaves claims 2 and 6 unchanged. Therefore, the present application has pending claims 1-6 and 8-11.

Claims 1, 6, 8 and 10 stand rejected under 35 USC §103(a) as being unpatentable over Campbell (U.S. Patent No. 5,918,209) in view of Okawa (U.S. Patent No. 5,933,810); and claims 3-5, 9 and 11 stand rejected under 35 USC §103(a) as being unpatentable over Campbell, Okawa and Lynch (U.S. Patent No. 6,119,094). These rejections are traversed for the following reasons. Applicants submit that the features of the present invention as now more clearly recited in claims 1-6 and 8-11 are not taught or suggested by Campbell, Okawa or Lynch whether taken individually or in combination with each other as suggested by the Examiner.

Amendments were made to each of the claims to more clearly recite three different features of the present invention. These features are as follows:

Claims 3-5, 9 and 11 recite the substitute reservation plan preparation element adapted to prepare at least one substitute reservation plan which is obtained by altering at least one condition-variable among condition-variables of a resource search condition equation (a physical connection information evaluation equation) which constitutes the content of reservation in the reservation booking requests accepted by the first acceptance element. Here which "condition-variable" is to be altered is determined by evaluating user's attributes, status information (load on resources or social factors), service attributes in accordance with service

execution policies. Support for this feature is found in the specification on page 25, line 2 to page 27, line 9.

Claims 1-6 and 8-11 recite a reservation condition management element adapted to manage the accepted reservation of services as reservation conditions, thereby controlling the resources which supply the services. In other words, it is furnished with a means for directly controlling the resources object of control. Support for this feature is found in the specification on page 16, lines 14-22 and page 42, lines 19-25.

Claims 1-6 and 8-11 also recite a service resource allotting element adapted to select a combination among combinations of the resources which includes data accumulation resources, data transmission resources and data processing resources to allot resources which constitute the combination thus selected to the reservation of the service whose reservation was taken. Here, which "combination" is to be selected is determined by evaluating user's attributes, status information (load on resources or social factors), service attributes in accordance with service execution policies. Support for this feature is found in the specification on from page 30, line 15 to page 36.

Based on the above described features of the present invention now more clearly recited in the claims Applicants submit that the features of the present invention as recited in the claims are not taught or suggested by any of the references of record particularly Campbell, Okawa or Lynch whether taken individually or in combination with each other as suggested by the Examiner.

In the Office Action, the Examiner insists that the “degree of importance” of the present invention and the “marginal value” of the Campbell are equal. However, the system disclosed in the present invention and that of Campbell differs substantially from each other. Hence these two are not equal as alleged by the Examiner.

In Campbell, the “net revenue” which is an evaluation value of the “flight path” is calculated when a reservation for the “flight path” is received. The “marginal value” is a threshold used to decide whether to accept reservation or not by comparison with the “net revenue”. The “net revenue” expresses a restrictive condition as to the types of acceptable services. The quality of “reservation” is expressed by “net revenue” which is merely a sum of revenue of each “flight legs”. Moreover, as described below, the “marginal value” is calculated periodically.

As per col. 7, lines 43-52 of Campbell, the purpose of the MVS is to determine system-wide optimal marginal values for use by the airline revenue management system. The MVS periodically receives a demand forecast, passenger value and the supply of seats remaining to be booked.

In the present invention, “degree of importance” expresses quality of services, and such is determined based on user’s attributes, status information, and service attributes. Further, the “degree of importance” is calculated for every request for reservation received.

As described above, the “marginal value” in Campbell is a threshold for making judgment on whether to accept reservation or not. In contrast, the “degree of importance” of the present invention is a quality of reservation. The present

invention attains a following function by such difference. Hence, in Campbell, only the "revenue" in each "flight leg" is evaluated for every request or reservation. On the other hand, the present invention evaluates each of the user's attributes, status information (load on resources or social factors), service attributes is evaluated for each request (reservation). Accordingly, the present invention made it possible to provide appropriate judgments on whether to accept reservations or not even in a case where these information (i.e., user's attributes, status information, and service attributes) frequently changes. For instance, even when network load, actual measurement of congestion and expected measurement of congestion may vary drastically, an appropriate judgment reflecting these variances on whether to accept reservations or not can be provided. Whereas in Campbell, it is necessary to frequently update many "marginal values" in order to make appropriate judgments on whether to accept reservations or not.

Thus, as is quite clear from the above, the features of the present invention as now more clearly recited in the claims are not taught or suggested by Campbell whether taken individually or in combination with any of the other references of record.

The above noted deficiencies of Campbell are not supplied by any of the other references of record particularly Okawa and Lynch.

Okawa is a corresponding U.S. application of the Japanese Patent Application Laid-Open No. 292987/1996 mentioned in the "Background of the Invention" section of the present invention. Okawa determines an importance of the reservation according to content of the reservation, days remained before the date of the

reservation, an user's attributes. The importance of the reservation is compared with the reservations already made, and judgment for acceptance is made based on this.

Okawa utilizes the same resource with the reservations already made and cancels reservations already made when a reservation having higher priority is received. In this scheme, there is an issue of growing dissatisfaction of users whose reservations are once accepted. In contrast, the present invention judges acceptance or rejection of reservations according to status of resource load, and importance of reservations. Therefore, the reservations once made would be suppressed from being canceled.

Further, the resource of the management target in Okawa is presented only once and merely allocates the right to use according to time frame. Hence, there is only two conditions in the target resource of management, that is either the resource is occupied or vacant. Whereas, the present invention comprises means for adjusting amount of resources utilized for performing services in accordance with a status of load on the resources, and means for offering substitute reservation plans. With these features, a function in which an increased number of users may enjoy services is attained. These functions are attained by utilization of features of the present invention, namely the management target resource of the present invention "includes uncountable matters" and/or "comprises a means for providing services by combination of plurality of resources. Such features are not indicated in the Okawa reference.

As argued in the Remarks of January 28, 2004, the combination of Campbell and Okawa also fail to indicate features 1-3 mentioned in No. 2 above. Moreover,

these combinations do not indicate inclusion of uncountable resources as the target of management/restriction.

The present invention allows control so as to avoid such as degenerated transmission quality. Consequently, is it possible to increase the number of users offered with services. Further, it is also possible to make reservations for services that require a combination of different types of resources. These functions are not attained by the combination of the Campbell and Okawa references.

Even when load on resources are high due to differences in the management target resources, the present invention may offer services including uncountable resources for the management and restriction targets. Therefore, the present invention attains a function in which even more users may enjoy the services.

Thus, the “marginal value” in Campbell and the “importance of a reservation” in Okawa are two different concepts that cannot be combined.

Therefore, as is quite clear from the above, Campbell whether taken individually or in combination with Okawa fails to teach or suggest numerous features of the present invention as now more clearly recited in the claims. Accordingly, reconsideration and withdrawal of the 35 USC §103(a) rejection of claims 1, 6, 8, and 9 as being unpatentable over Campbell in view of Okawa is respectfully requested.

The above described deficiencies of the combination of Campbell and Okawa are also evident in Lynch. Therefore, combining the teachings of Campbell and Okawa with Lynch would still fail to teach or suggest the features of the present invention as now more clearly recited in the claims.

Lynch teaches that an “analytical sub-module” receives a departure city, a destination city and a travel schedule, then outputs parameters to indicate travel itinerary by genetic algorithm (a set of parameters which can be used to identify travel arrangements that may be suitable for the customer). See page 7, col. 7, lines 29-34 of Lynch.

The above described features of the present invention are not disclosed in Lynch. The present invention according to claims 3-5 and 11 could offer reduced services such as reduced transmission quality, or changing time of providing services. Accordingly, the present invention may fulfill the needs of even more users. Moreover, it is capable to respond to the needs of many users by equally dividing utilization of resources.

Lynch does provide parameters for indicating travel itinerary by genetic algorithm. However, the contents of the genetic algorithm, that is, a practical calculation method of the parameters are not disclosed in Lynch. In order to apply the technology disclosed in Lynch to the management of service offered in a “high function network” as in the present invention, at least the following matters need to be clarified in Lynch.

First, the practical necessary conditions or a method for determining necessary conditions which the substitute plan needs to fulfill must be clarified in the travel reservation issue of Lynch. For instance, “the departure city and the destination city in the substitute plan must be the same as those in the reservation request”, or “the departure date and time in the substitute plan must be one day plus/minus the date and time in the reservation request”, etc.

Second, a method for applying an idea of necessary conditions the substitute plan needs to fulfill to a management of services offered by the "high function network" which is the target of the present invention needs to be practically and concretely disclosed. For instance, "a method for determining necessary condition" is apparently applicable to the target region of the present invention.

However, these matters are not taught or suggested by Lynch. Therefore, Lynch does not render obvious, when combined with Campbell and Okawa, the functions of the present invention as recited in claims 3-5 and 11.

Thus, as is quite clear from the above, the features of the present invention as now more clearly recited in the claims are not taught or suggested by Campbell whether taken individually or in combination with Okawa and/or Lynch as suggested by the Examiner. Therefore, reconsideration and withdrawal of the 35 USC §103(a) rejection of claims 3-5, 9 and 11 as being unpatentable over Campbell in view of Okawa and Lynch is respectfully requested.

The remaining references of record have been studied. Applicants submit that they do not supply any of the deficiencies noted above with respect to the references utilized in the rejection of claims 1-6 and 8-11.

In view of the foregoing amendments and remarks, applicants submit that claims 1-6 and 8-11 are in condition for allowance. Accordingly, early allowance of claims 1-6 and 8-11 is respectfully requested.



To the extent necessary, the applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, or credit any overpayment of fees, to the deposit account of MATTINGLY, STANGER & MALUR, P.C., Deposit Account No. 50-1417 (566.38876X00).

Respectfully submitted,

MATTINGLY, STANGER & MALUR, P.C.



---

Carl I. Brundidge  
Registration No. 29,621

CIB/jdc  
(703) 684-1120